JCO2 Rec'd PCT/PTO 2.7 PAP3R (R2005005)
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## TRANSMITTAL LETTER TO THE UNITED STATES **DESIGNATED/ELECTED OFFICE (DO/EO/US)**

ATTORNEY'S DOCKET NUMBER U.S. APPLICATION No. (1) known see 37 CFR 1.5)

CONCERNING A SUBMISSIO	N UNDER 35 U.S.C. 371	10/552886					
INTERNATIONAL APPLICATION NO. PCT/GB2003/003848	INTERNATIONAL FILING DATE 05 September 2003	PRIORITY DATE CLAIMED 05 September 2002					
TITLE OF INVENTION							
HEAT EXCHANGER AND/OR CHEMICAL REACTOR							
APPLICANT(S) FOR DO/EO/US  Keith Thomas SYMONDS							
Applicant herewith submits to the United Sta	ates Designated/Elected Office (DO/EC	D/US) the following items and other information:					
1. This is a <b>FIRST</b> submission of items co	1. This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.						
2. This is a SECOND or SUBSEQUENT s	ubmission of items concerning a submission	n under 35 U.S.C. 371.					
3. This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.							
4. X The US has been elected (Article 31).							
5. X A copy of the International Application	n as filed (35 U.S.C. 371(c)(2))						
a. X is attached hereto (required	only if not communicated by the Internation	nal Bureau).					
b. has been communicated by	b. has been communicated by the International Bureau.						
c. is not required, as the applic	c. is not required, as the application was filed in the United States Receiving Office (RO/US).						
6. An English language translation of the	e International Application as filed (35 U.S.C	C. 371(c)(2)).					
a. is attached hereto.	a. is attached hereto.						
b.  has been previously submit	b. has been previously submitted under 35 U.S.C. 154(d)(4).						
7. Amendments to the claims of the Inte	Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))						
a. are attached hereto (requir	a. are attached hereto (required only if not communicated by the International Bureau).						
b. L have been communicated	b. have been communicated by the International Bureau.						
c. have not been made; howe	c. have not been made; however, the time limit for making such amendments has NOT expired.						
d. Light have not been made and v	vill not be made.						
8. An English language translation of th	e amendments to the claims under PCT Art	ticle 19 (35 U.S.C. 371(c)(3)).					
9. X An oath or declaration of the inventor	(s) (35 U.S.C. 371(c)(4)).						
10. An English language translation of the Article 36 (35 U.S.C. 371(c)(5)).	e annexes of the International Preliminary E	xamination Report under PCT					
items 11 to 20 below concern document(s	) or information included:						
11. An Information Disclosure Statement	under 37 CFR 1.97 and 1.98.						
12. An assignment document for recording	g. A separate cover sheet in compliance wi	th 37 CFR 3.28 and 3.31 is included.					
13. X A preliminary amendment.		•					
14. An Application Data Sheet under 37 C	CFR 1.76.						
15. A substitute specification.							
16. A power of attorney and/or change of	address letter.						
17. A computer-readable form of the sequ	uence listing in accordance with PCT Rule 1	3ter.2 and 37 CFR 1.821- 1.825.					
18. A second copy of the published Intern	national Application under 35 U.S.C. 154(d)	<b>(4)</b> .					
1) PC	ge translation of the international application TRequest Form; 2) Interna	under35 U.S.C. 154(d)(4). ational Search Report and					
20. X Other items or information: 3) Po		<b>4</b> - ·					

This collection of information:

3) Petition for Revival

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Page 1 of 2

Page 1 of 2

JC14 Rec'd PCT/PTO 2 7 APR 2005
PTO-1390 (Rev. 02-2005)
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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) INTERNATIONAL APPLICATION NO.		ATTORNEY'S DOCKET NUMBER				
10	10/532886 PCT/GB2003/003848		P7151			
	owing fees have				CALCULATIONS	PTO USE ONLY
21. χ Basi	c national fee			\$300	\$ 300	
22. X Examination fee  If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)			\$ 200			
23. X Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority. \$100 International Search Report prepared and provided to the Office. \$400 All other situations. \$500				\$ 400	·	
	TOTAL OF 21, 2	2 and 23 =			\$ 900	
Additional fer sequence lis	e for specification sting or computer	and drawings file program listing fil	ed in paper over 100 sheets (exed in an electronic medium).  of paper or fraction thereof.	xcluding		
Total Sheets	Extra Sheets	Number of eac	h additional 50 or fraction up to a whole number)	RATE		
- 100 =	/50 =			x \$250	\$	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(h)).					\$ 130	
CLAIMS	NUME	BER FILED	NUMBER EXTRA	RATE	\$	
Total claims		- 20 =	· · · <del>-</del>	x \$ 50	\$ 450	
Independent clair	ns	- 3 =		x \$200	\$	
MULTIPLE DEPE	ENDENT CLAIM(	S) (if applicable)		+ \$360	\$	
			TOTAL OF ABOVE	CALCULATIONS =	\$	
Applicant cla	ims small entity s	tatus. See 37 CF	R 1.27. Fees above are reduc	ed by ½.		
				SUBTOTAL =	\$ 1,480	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).			\$			
			TOTAL	NATIONAL FEE =	\$ 1,480.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$		
			TOTAL F	EES ENCLOSED =	\$1,480.00	
				Amount to be refunded:	\$	
					Amount to be charged:	\$
a. A check	k in the amount o	f \$	to cover the abo	ve fees is enclosed.		
b. X Please charge my Deposit Account No. <u>18-2284</u> in the amount of \$1,480.00 to cover the above fees. A duplicate copy of this sheet is enclosed.						
c. x  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 18-2284  A duplicate copy of this sheet is enclosed.						
d. Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not						
be included on this form. Provide credit card information and authorization on PTO-2038.  NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed						
and granted to restore the International Application to pending status.  SEND ALL CORRESPONDENCE TO:						
DLA PIPER RUDNICK GRAY CARY US LLP						
P.O. Box 64807			f			
_	Chicago, IL 60664-0807  R. Blake Johnston  NAME					
(312) 368-4000 41,097 REGISTRATION NUMBER						

10/532886 10 27 APR 2005

CERTIFICATE OF Applicant(s): Keith Tho	MAILING BY "EXPRESS I mas Signal NDS	MAIL" (37 CFR 1.10)	Docket No. P7151			
Serial No.	Filing Date HEREWITH	Examiner	Group Art Unit			
Invention: HEAT EXCI	HANGER AND/OR CHEMICAL	REACTOR				
	e following correspondence:					
NEW U.S. NATIONAL PHASE PATENT APPLICATION						
	(Identify type of correspondence)					
•		ce "Express Mail Post Office to Addi				
CFR 1.10 in an envelo	pe addressed to: Commissioner	for Patents, P.O. Box 1450, Alexan	dria, VA 22313-1450 on			
	April 27, 2005					
	(Date)					
		Stephanie Warner-Wa Typed or Printed Name of Berson Mailing  (Signature of Person Mailing Corre  EV630251953US  ("Express Mail" Mailing Label	Correspondence)  Adlack spondence)			
	Note: Each paper must ha	ve its own certificate of mailing.				